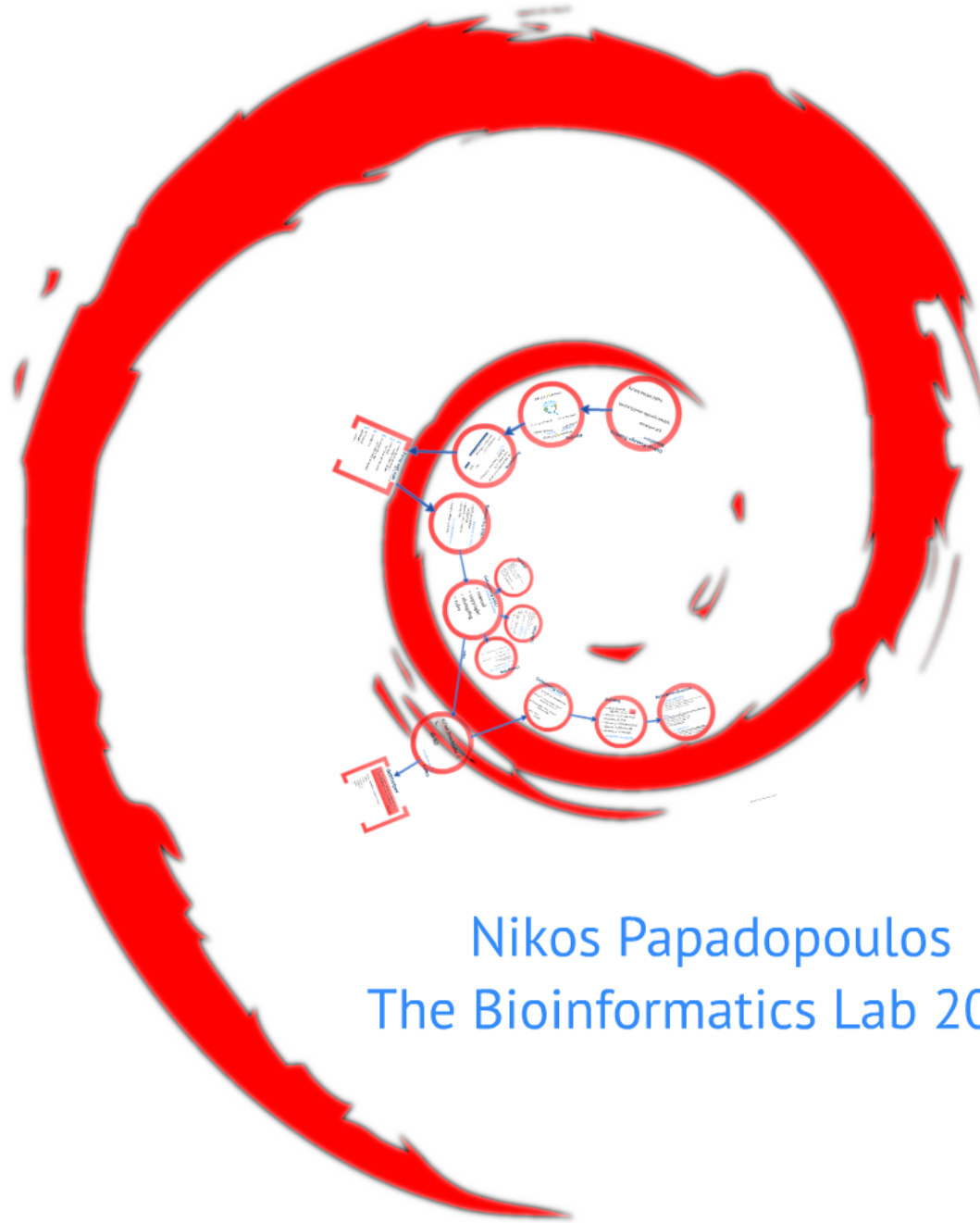
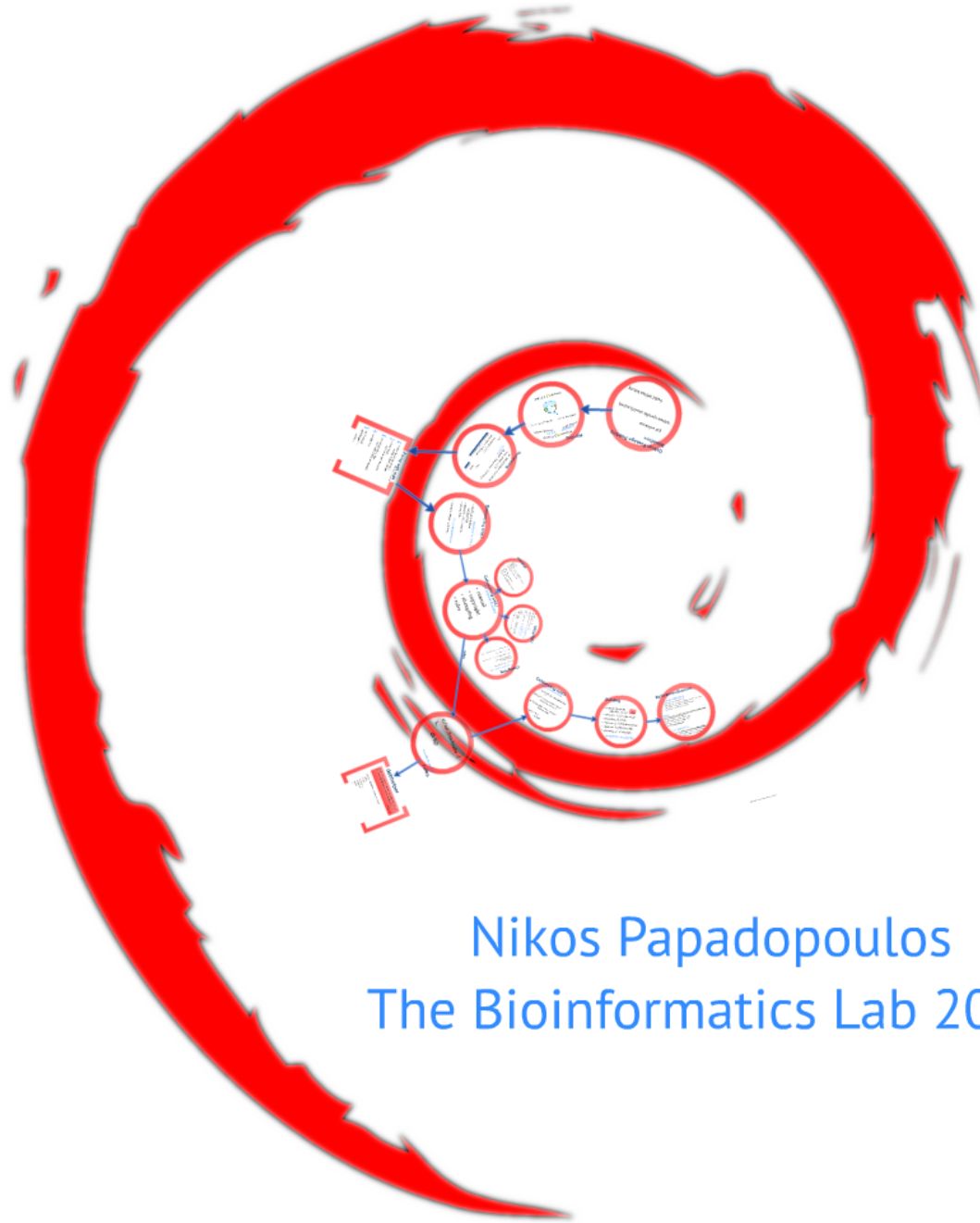


Debian Packaging



Nikos Papadopoulos
The Bioinformatics Lab 2013

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Debian Package Building Workflow

get software



debian-specific modifications



build debian binary

Naming

awesome-1.3.37.tar.gz

awesome
package name

1.3.37
upstream version

$(a-z)[a-z0-9.-+]+$

$(0-9)[a-zA-Z0-9.~+]*$



awesome_1.3.37.deb

Debianizing

```
tar -xvz awesome-1.3.37.tar.gz  
cd awesome-1.3.37  
dh_make ../awesome-1.3.37.tar.gz  
dh_make
```

\$ ls ../

awesome-1.3.37/

awesome-1.3.37.tar.gz

awesome-1.3.37.orig.tar.gz

\$ ls ./

stuff/

debian/

Debianizing (ctd.)

installation directory

- /usr/local forbidden!
 - \$(DESTDIR)
- Makefile: GNU standards
- source: FHS

library dependencies

- change to debian equivalents

Fixing with quilt

like a git for patches

- 1 create "local repository":
`mkdir debian/patches`
- 2 create patch:
`quilt new <patchname>`
- 3 specify working files:
`quilt add stuff/something.js`
- 4 modify files
- 5 quilt refresh
`quilt header -e`
`...<text>...`

Debianizing (ctd.)

installation directory

- /usr/local forbidden!
 - \$(DESTDIR)
- Makefile: GNU standards
- source: FHS

library dependencies

- change to debian equivalents

control

```
Source: awesome
Section: x11
Priority: optional
Maintainer: Nikos Papadopoulos <niko@niko.th>
Build-Depends: debhelper (>=9), bla-dev, foo1.2-dev, bar1.2-dev
Standards-Version: 3.9.4
Homepage: http://www.niko.th/awesome/

Package: awesome
Architecture: any
Depends: $!shlibs:Depends!, $!misc:Depends!
Breaks: lame-packages
Description: pure awesomeness in binary form
more detailed description of package. Notice space at beginning.
```

copyright

```
Name: awesome
Maintainer: Niko <niko@niko.th>
Source: http://sourceforge.net/projects/awesome
Copyright: 2013 Niko <niko@niko.th>
License: wtfpl

Files: stuff/*
Copyright: 2013 Niko <niko@niko.th>
License: wtfpl

Your debian/copyright file must
contain the following information:
- The author(s) name
- The year(s) of the copyright
- The used license(s)
- The URL to the upstream source

DO WHAT THE <ensored> YOU WANT TO PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION
AND MODIFICATION
0 You just DO WHAT THE <ensored> YOU WANT TO.
```

Debianizing (ctd.) the debian/ directory

- control
- copyright
- changelog
- rules

changelog

special format - used by dpkg

```
awesome (1.3.37) unstable; urgency=low

* Initial release. Closes: #1
* creating package was fun blah blah

-- Niko <niko@niko.th> Mon, 22 Mar 2010 00:37:31 +0100

* bugfix release after three years

-- Niko <niko@niko.th> Sat, 21 Jun 2013 16:57:42 +0100
```

rules

control

Source: awesome

Section: x11

Priority: optional

Maintainer: Nikos Papadopoulos <niko@niko.tbl>

Build-Depends: debhelper (>=9), bla-dev, foo1.2-dev, bar1.2-dev

Standards-Version: 3.9.4

Homepage: <http://www.niko.tbl/awesome/>

Package: awesome

Architecture: any

Depends: \${shlibs:Depends}, \${misc:Depends}

Breaks: lame-packages

Description: pure awesomeness in binary form

more detailed description of package. Notice space at beginning.

copyright

Name: awesome

Maintainer: Niko <niko@niko.tbl>

Source: <http://sourceforge.net/projects/awesome>

Copyright: 2013 Niko <niko@niko.tbl>

License: wtfpl

Files: stuff/*

Copyright: 2013 Niko <niko@niko.tbl>

License: wtfpl

License: wtfpl

DO WHAT THE <censored> YOU WANT TO PUBLIC LICENSE
TERMS AND CONDITIONS FOR COPYING, DISTRIBUTION
AND MODIFICATION

0. You just DO WHAT THE <censored> YOU WANT TO.

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contain the following information:

- The author(s) name
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changelog

special format - used by dpkg

awesome (1.3.37) unstable; urgency=low

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- * bugfix release after three years

-- Niko <niko@niko.tbl> Sat, 21 Jun 2013 16:57:42 +0100



```
#!/usr/bin/make -f
```

```
%:
```

```
dh $@
```

makefile for package

rules

debhelper

debhelper is a suite of programs originally written by Joey Hess that help a Debian packager write rules files.

- Wikipedia

automatical handling of all standard cases:

- clean
- build
- build-arch
- build-indep
- install
- ...

Debianizing (ctd.)

the `debian/` directory (revisited)

compat: debhelper compatibility level
9

manpage.1: manpage document (nroff)
(rename to awesome.1)

package.manpages: awesome.manpages:
docs/awesome.1

source/format:
3.0 (quilt)

Building

at source directory:
debuild (-us -uc)



- awesome_1.3.37.orig.tar.gz
- awesome_1.3.37.dsc
- awesome_1.3.37.debian.tar.gz
- awesome_1.3.37_i386.deb
- awesome_1.3.37.changes

verify/test with pbuilder

lintian

use on .changes file

common packaging errors
(Debian policy)

ftpmasters

acceptance/rejection of new package

running the archive

supporting the release managers

maintaining package/archive state

ftpmasters

acceptance/rejection of new package

running the archive

supporting the release managers

maintaining package/archive state

References/Sources

actual packaging

<http://wiki.debian.org/Packaging/>

<http://www.debian.org/doc/manuals/maint-guide/index.en.html>

<http://wiki.debian.org/HowToPackageForDebian>

<http://wiki.debian.org/Packaging/Files>

tools

<http://manpages.ubuntu.com/manpages/intrepid/man7/debhelper.7.html>

<http://en.wikipedia.org/wiki/Debhelper>

<http://lintian.debian.org/manual/index.html>

<http://savannah.nongnu.org/projects/quilt>

<http://ftp-master.debian.org/>

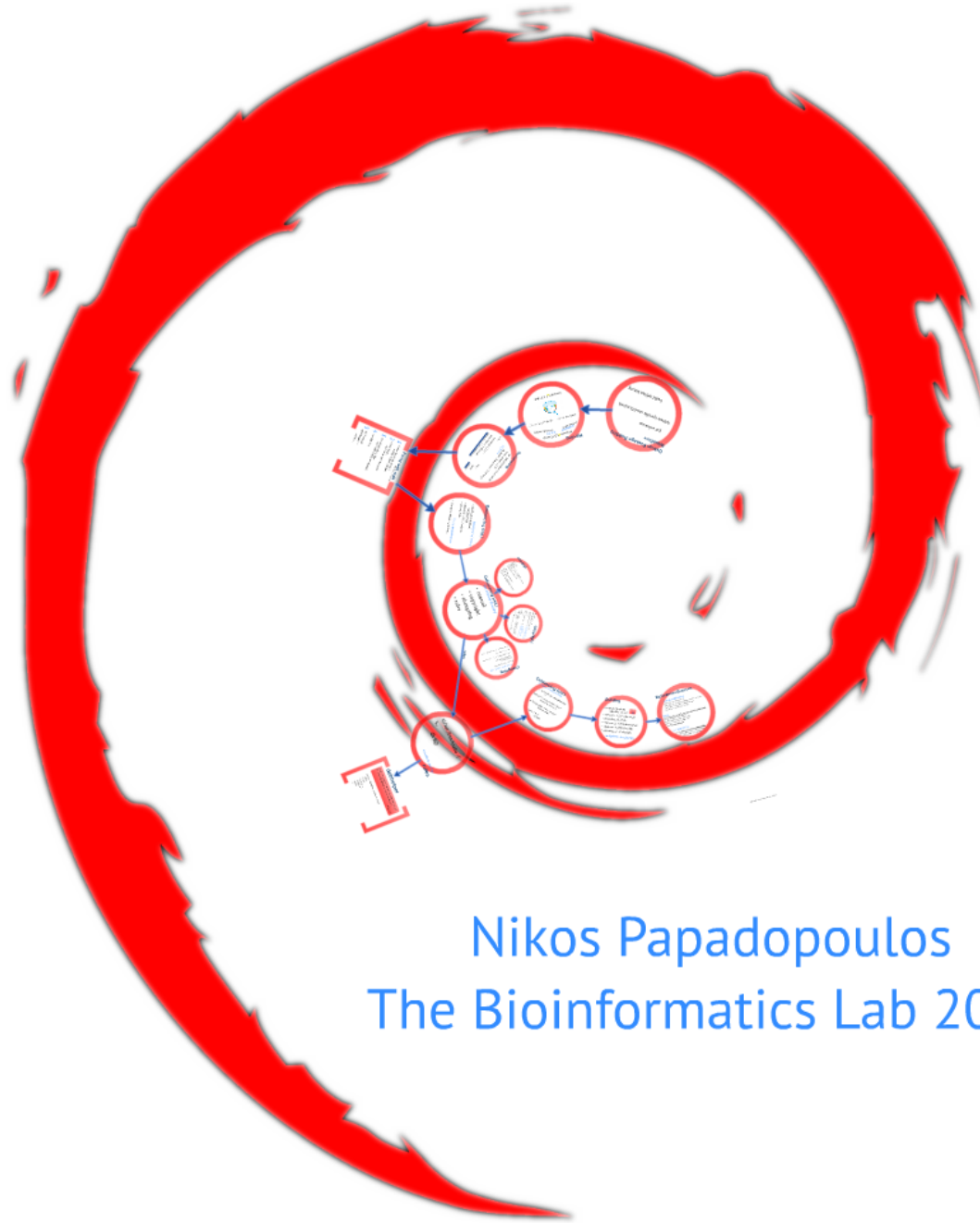
various meta

<http://www.debian.org/intro/organization.en.html>

<http://www.debian.org/doc/debian-policy/>

<http://www.debian.org/women/>

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